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ABSTRACT

The Occupational Articulation Project at Lane Community College (LCC) is designed to enhance vocational curricula and encourage articulation by involving business and industry in the development of 2+2 curricula for secondary and postsecondary institutions. Business and industry representatives develop comprehensive lists of the skills needed and tasks involved in specific careers. Secondary and postsecondary institutions utilize these task/skill lists to improve and develop their curricula. The implementation of the system at LCC included the following: (1) identification of existing industry standard task lists; (2) validation of existing lists by local business and industry representatives; (3) review of lists by teachers to identify pre-tasks needed by students; (4) classification of tasks for specific careers; (5) entry of tasks lists, performance guides and career data into the 2+2 Occupational Articulation Database software; and (6) inservice training for secondary and postsecondary teachers on how to utilize the software for curriculum improvement, career counseling, and articulation. The 2+2 Occupational Articulation Database is the first of three software packages to be developed. A second database, currently in design, will allow teachers to keeps records of courses completed by students and the skills acquired. The third database will make it possible to create criterion-referenced skills tests for all or part of a course, program, or career. Specifics of the articulation database, including operating procedures are included, and program forms and procedures are appended. (JMC)

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THE OCCUPATIONAL ARTICULATION DATABASE

A System for Managing the Articulation Process

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TABLE OF CONTENTS

PREFACE 1

INTRODUCTION 1

DEVELOPMENT OF THE OCCUPATIONAL ARTICULATION PROJECT 2

USING THE OCCUPATIONAL ARTICULATION PROJECT SOFTWARE 3
- 2+2 Database for High School Curriculum Development 3
- 2+2 Database to Increase Community College Credits 3
- 2+2 Database for Identifying Core Skills 4
- 2+2 Database to Identify Careers for Training 4
- 2+2 Database for Career Counseling 5
- 2+2 Database for Articulation 5

THE 2 + 2 OCCUPATIONAL ARTICULATION DATABASE SOFTWARE 5
- 2+2 Occupational Articulation Database 6
- 2+2 Student Profile Database 6
- 2+2 Criterion Referenced Test Database 6

SPECIFICS OF THE 2+2 OCCUPATIONAL ARTICULATION DATABASE 6
- Equipment Needed 6
- Site License for 2+2 Occupational Articulation Software 7
- Features of Software 7

SAMPLE DATA 8

ARTICULATION AGREEMENT 8

* APPENDIX I APPENDIX I
- SAMPLE MENUS AND DATA

APPENDIX II APPENDIX II
- ARTICULATION AGREEMENT
  - Procedures for Granting Credit
  - 2+2 Credit Transmittal Form and Procedures

* Not included with this handout.

PREFACE

For many years, secondary and postsecondary schools have used occupational advisory committees to assist in the development and improvement of vocational curriculums. Often teachers and advisory committee members are unaware of the task lists and other tools available to them through the: Vocational-Technical Educational Consortium of States, Michigan Occupational Data Analysis System, Bureau of Labor Statistics, departments of education, and professional organizations. The lack of knowledge of, or possibly the unwillingness to use the available tools often makes curriculum development and updating a slow process, often too slow for the expectations of business and industry.

Over the past few years, the word "articulation" has become synonymous with the student transition between the postsecondary and secondary levels. The transition is often based on a comparison of the tasks/competencies taught at the secondary level and how they relate to the postsecondary curriculum. Articulation agreements between most schools are often tied to the existing partially updated curriculum, not competency based validated curriculums.

INTRODUCTION

The Occupational Articulation Project looks at articulation in a broader perspective, taking into consideration not only the secondary/postsecondary connection but also the connection between the schools and the business community. The Occupational Articulation model includes business and industry as a major component of the traditional 2+2 articulation model.

The Occupational Articulation Project identifies a loop to enhance vocational curriculums and encourage articulation. This loop includes the following steps:

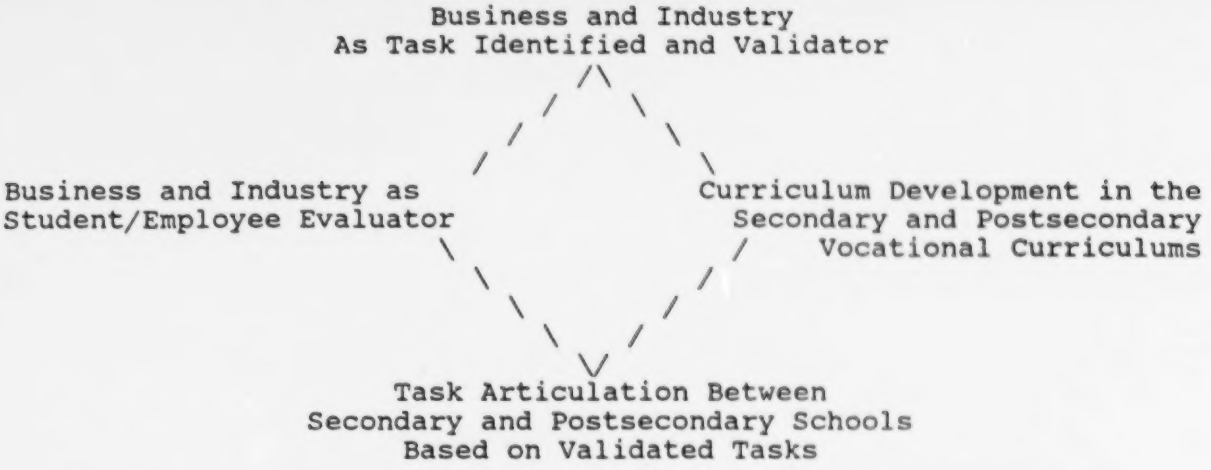
1. Business and industry work with education to develop a comprehensive task list for specific vocational careers.

2. Secondary and postsecondary institutions utilize the comprehensive task list to improve and develop the vocational curriculum.

3. Educational levels cooperate to provide and articulate task/competency based training.

4. Business and industry reenter the process to evaluate the vocational students and to revise and update their expectations.

The Occupational Articulation Project combines the curriculum development and articulation processes into a single system that encourages both curriculum development and articulation as a part of a comprehensive process.



The involvement of business and industry in identifying the tasks needed for job success provides the key to an effective vocational curriculum. The development of comprehensive task lists provides the common thread by which curriculums at all levels can be evaluated, improved and articulated.

DEVELOPMENT OF THE OCCUPATIONAL ARTICULATION PROJECT

The Occupational Articulation Project, as developed through the Lane County Vocational Education Consortium, utilizes a comprehensive, validated task list for office systems and accounting careers, and a software package designed and copyrighted by John Hughes. The implementation of the system included the following steps:

I. Cooperative venture by local schools and business and industry to identify careers to be included in the project.

II. Identification of existing industry standard task lists and preparation for validation.

III. Validation of industry standard task list and performance guides by local business and industry representatives.

IV. Review of validated task list by area teachers to identify pre-tasks (tasks necessary to bring student competence to levels indicated in industry standard tasks).

V. Classification of validated tasks for specific careers by business and industry representatives.

VI. Entry of task list, performance guides, and career data into the 2+2 Occupational Articulation Database software.

VII. Entry of tasks by course and program by secondary and postsecondary instructors

VIII. Inservice for teachers on how to utilize the software for curriculum improvement, career counseling, and articulation.

IX. Identification of task revalidation schedule for continuous revalidation of tasks and performance guides.

USING THE OCCUPATIONAL ARTICULATION PROJECT SOFTWARE

Once the Occupational Articulation Project has been implemented, the software can be utilized in a number of different ways. Listed below is a part of a draft utilized for the field-testing of the software in four Lane County high schools.

2+2 DATABASE FOR HIGH SCHOOL CURRICULUM DEVELOPMENT

The 2+2 Database Software can be used as a curriculum development tool to: increase the community college credits available to high school students, identify the core skills, and identify careers that are appropriate for graduates of the high school program.

2+2 Database to Increase Community College Credits

By comparing the specific high school courses to the community college curriculum, the high school instructor may identify the percentage of match between the high school courses and the community college courses. To complete this step, select the following option:

MAIN MENU/\2 Compare COurses
Compare Courses Menu/\2 Specific High School Courses
HS Courses Menu/\2 All Community College Courses

By reviewing the percentage of match for each of the community college courses, the instructor will be able to identify the courses with the highest match percentages and therefore those courses for which the students could receive credit with minor curriculum revision. To identify the specific tasks that would need to be added to a curriculum to provide the additional community college credit:

1. Select the following option:

MAIN MENU/\2 Compare COurses
Compare Courses Menu/\2 Specific High School Courses
HS Courses Menu/\1 Specific Community College Courses

2. Use the high school courses pick window to identify the high school courses to be compared to a specific community college course.

3. Use the community college course pick window to identify the specific community college course to be compared.

4. Print the output which will include both the tasks that compare and those that do not compare.

5. Use the list of tasks that DO NOT COMPARE to determine the tasks that would need to be added to the high school curriculum for students to receive community college credit.

6. Repeat the procedure above for other community college courses which identified a high percentage of match with the high school courses.

7. If appropriate, make changes to high school course curriculum to incorporate DO NOT COMPARE tasks.

8. If changes are made, utilize high school supervisor access code to make appropriate changes in 2+2 data files.

2+2 Database for Identifying Core Skills

The 2+2 Database Software can be used to determine the core skills necessary for office systems and accounting careers. Appendix II of the Office Systems/Accounting Task Catalog identifies each of the tasks in the 2+2 database and the careers that require the specific task. By reviewing this appendix for the career(s) for which you are training students, you will be able to determine the core skills that need to be included in your program.

The core skills data can also be helpful in identifying the scope and sequence for your courses. Tasks required in all or most of your selected careers may be incorporated into classes that all students are required to take while tasks required in only a few careers may be included in specialized courses.

Utilize the 5 List Database Option 2 By Task for a list of the careers that require a specific task or group of tasks.

2+2 Database to Identify Careers for Training

One of the most difficult parts of developing a curriculum is determining what skills are needed for students to succeed in a specific career. To get a feel for how a high school curriculum compares to a specific career, select 3 Compare Careers from the MAIN MENU. By comparing the high school curriculum or specific high school courses to a specific career, it is possible to determine not only the percentage of match but also the tasks that compare and do not compare. This will provide the instructor with information to decide if tasks that do not compare can be added to the curriculum, to provide the students with the job entry skills for the specific career.

The Compare Careers option also makes it easy to identify the specific careers for which you want to train your students. By utilizing employment data for the local area and the comparison of the current curriculum to a specific career, this should allow

the instructors to identify careers for which they have the ability to train their students.

2+2 Database for Career Counseling

The 2+2 Database Software can be easily utilized as a career counseling tool for high school and community college students. Through the use of the software, a teacher or counselor can demonstrate the following to students:

1. Tasks The specific tasks that are taught within a specific high school or community college course.

2. Careers The specific tasks that the student must be able to do in order to succeed in a specific career.

3. Compare Courses to a Career The specific courses a student has taken or is planning to take, can be compared to a specific career to identify the percentage of match as well as the tasks they have learned and will need to learn.

4. Compare High School Courses to Community College Courses To identify the level of community college credit a high school student could receive, the specific courses a high school student has taken, or plans to take, can be compared to the community college curriculum. The student will be able to see a list of community college classes for which they could receive credit.

5. 2+2 Program The 2+2 Program option can be used to map a program for a high school student to follow from grades 9-14 for a specific community college program.

2+2 Database for Articulation

To utilize the 2+2 Database for articulation between the high school and community college level, two options would need to be selected: Compare Courses and 2+2 Program. The Compare Courses option allows the software user to compare a specific high school course or courses to a community college course or courses. This option identifies the level of task match between the high school and community college curriculums. Once the courses have been compared, 4 2+2 Program can be selected from the MAIN MENU. This will provide the high school student with the specific vocational curriculum they should follow from grade 9 in high school through grade 14 at the end of a two year community college curriculum.

THE 2 + 2 OCCUPATIONAL ARTICULATION DATABASE SOFTWARE

First of Three Software Packages Planned

The 2+2 Occupational Articulation Database is the first of three software packages that support the concepts of occupational articulation:

2+2 Occupational Articulation Database The 2+2 Occupational Articulation Database software has been written to focus on curriculum development, career counseling, and articulation between educational levels. This software uses validated tasks to compare courses, programs, and careers, to develop and improve curriculums, and to provide career counseling for students. This package also is able to compare the tasks identified for secondary and postsecondary courses, to provide an avenue for articulation through a printed 2+2 curriculum.

Student Profile Database The second Occupational Articulation Database is presently in the design stage. The task, course, program, and career files used in the 2+2 Database will also be utilized within Student Profile Database. The main function for this software package will allow recordkeeping for individual students by secondary and postsecondary courses taken and by specific tasks completed. Instructors will be able to keep an ongoing record of the tasks learned by a specific student by entering courses taken (which automatically toggles the tasks taught in the course) or by entering the specific tasks that are learned or not learned. Data for specific students may then be compared to specific postsecondary courses, programs, and careers to identify the appropriate articulation. A printed student task profile will be available to identify specific tasks learned by the student.

Note: Upon the completion of the third software package, the Student Profile Database will allow criterion reference test items to serve as a way in which tasks can be toggled.

Criterion Referenced Test Database The third software package in the Occupational Articulation Database series will utilize criterion referenced test items for tasks within the database. This database will utilize the task, course, program, and career data identified for the 2+2 Occupational Articulation Database. The package will make it possible to create criterion referenced tests for all or part of a course, program, or career. It will be possible to generate tests for specific students either on paper or as a computer administered test. Results of the tests can be easily exported to the Student Profile Database to toggle tasks learned.

SPECIFICS OF THE 2+2 OCCUPATIONAL ARTICULATION DATABASE

Equipment Needed

2 + 2 Database runs on the IBM PC Computer or close compatible with:

- 352K or more RAM memory
- Two double-sided diskette drives
  or
  At least one double-sided diskette drive and a fixed disk
- DOS version 2.xx or 3.xx
- Monochrome, Color, or Gray Scale Monitor

The 2+2 Database Software has been tested and found that it works correctly on the IBM PC, PC-XT, PC-AT, PS-2, and most close compatible systems.

Site License for 2+2 Occupational Articulation Database

The purchase of a site license for the 2+2 Occupational Articulation Database allows:

1. The software to be used by the postsecondary institution, satellite campuses of the institution and secondary schools in the area.

2. An unlimited number of copies of the software can be made for the postsecondary institution, satellite campuses, and area secondary schools.

3. The software program can be used as the platform for individual databases for any vocational or other department within the post secondary institution.

Features of the Software

- Task, course, career, and program data can be entered directly into the software.

- Access codes for various classifications of users assure that the integrity of the data is maintained. Data can not be altered unless the appropriate access code is utilized.

- Secondary and postsecondary instructors can easily update the data entered for courses and programs.

- Software is User Friendly

  -- Overlay menus so user can see where they are in the software at all times

  -- Help screens available for all menu choices and options

  -- Dialogue windows and pop-up windows make it easy to select course, program, and career data needed

  -- Function key assignments applicable to a specific menu are shown at the base of the screen

  -- All reports can be output to the screen, printer, or to a disk file

- Software file structure makes it possible for the software to be used for:

  -- Tasks lists with up to 1500 tasks per list

  -- Performance guides for each task

- -- Up to 128 different careers per task list
- -- No limit on the number of secondary schools
- -- Up to 128 different courses per secondary school
- -- No limit on the number of postsecondary school departments
- -- Up to 128 different courses per postsecondary school department

- o Software currently being field tested in Lane, Deschutes and Clackamas Counties.
- o Site license purchased for Oregon schools which provides a 50% discount on fees per educational service district, community college district, or vocational education consortium.

For more information about the Occupational Articulation Project contact:

Greg Harpole
Downtown Business Education Center
Lane Community College
1059 Willamette
Eugene, OR 97401
503-726-2251

For information about the 2+2 Occupational Articulation Software contact:

Sandra Hamill
Answerable Style Software
2456 Onyx
Eugene, OR 97403

SAMPLE DATA

Appendix I list the menus within the 2+2 Occupational Articulation Database software and a sample of the output for each option. The community college data included in the examples is real, data listed as Churchill High School is a compilation of course and task data for several high schools that have been involved in the field testing of the software.

ARTICULATION AGREEMENT

Appendix II provides a copy of the agreement being utilized between Lane Community College and the 20 LCC Service District high schools to manage the use of the 2+2 Occupational Articulation Database for articulation.

A P P E N D I X I I

PROCEDURES FOR GRANTING CREDIT THROUGH THE 2+2 DATABASE

DESCRIPTION: Procedures for Granting Community College Credit to High School Students Using the 2+2 Database Software

PURPOSE: To provide a series of procedures by which high school students will be able to receive community college credit for high school business classes.

INFO NEEDED: Student Information (name, address, etc.)
High School Courses Completed by Student
Community College Program of Interest to Student
Compare Course Information from 2+2 Database Software

PERFORMANCE OBJECTIVE:

To provide the information needed for a high school business student to receive community college credit, the following procedures will need to be followed:

1. Complete the student information section on the 2+2 Credit Transmittal Form.
   a. Complete or have student complete the personal information block on the Transmittal Form including all information requested.
   b. If necessary, or appropriate, ask parent or guardian to sign Transmittal Form.
2. On the Transmittal Form complete the High School Course block.
   a. Identify the name and number of each high school business course taken by the student.
   b. Identify the date of completion for each course.
   c. Verify that the student received a grade of "C" or better in each class.
   d. Identify the terminal speeds for the students as requested on the form.
3. From the 2+2 Database Software print a comparison of the high school courses taken by the students to the complete LCC Business Department curriculum.
   a. From the MAIN MENU select 2 Compare Courses.
   b. From the Compare Courses Menu select 2 Specific High School Courses.
   c. From the Specific High School Courses Menu select 2 All Community College Courses.
   d. The high school courses pick window will appear to allow for the toggling of specific high school courses.
      1) Toggle each of the high school courses taken by the student.
      2) When all courses have been toggled, depress ESC to solidify selections.
   e. OUTPUT To print a copy of the comparison, depress P for print when output options are displayed.

4. Verify courses listed on the course comparison to the courses listed on the Transmittal Form.
5. Attach the copy of the course comparison to the transmittal form.
6. Make copies of Course Comparison and Transmittal Form
   a. LCC One copy is to be mailed to: Greg Harpole, Downtown Business Education Center, Lane Community College, 1059 Willamette, Eugene, OR 97401.
   b. High School Maintain one copy for your files.
   c. Student Provide a copy of the Course Comparison and Transmittal Form to the student.

2 + 2 CREDIT TRANSMITTAL FORM AND PROCEDURES

STUDENT INFORMATION

Name_____ Phone_____

Address_____ City_____ Zip_____

School_____ Social Security Number_____

LCC Program of Interest_____

HIGH SCHOOL COURSE INFORMATION

Course Number	Course Name	Date Completed	"C" or Better Y or N

_____ _____
Student Signature Parent Signature (If Needed)

Business Teacher Skill Confirmation

Keyboarding Skill Alpha Copy (3 minute timing) _____GWAM ____ Errors

Keyboarding Skill Alpha-Num. (3 minute timing) _____GWAM ____ Errors

10 Key Calculator (Add Skills) 3 minute timing _____DPM ____ Errors

Dictation (3 Minute Takes) _____WAM ____ Errors

_____
Business Teacher

RECEIVING COMMUNITY COLLEGE CREDIT FOR HIGH SCHOOL BUSINESS CLASSES

INTRODUCTION

The 2+2 Database Software has been developed to assure that high school students are able to receive credit for skills learned in high school and to make an easy transition to Lane Community College.

The 2+2 Database Software compares what is taught in the business courses in your high school to the courses offered in the Business Department at Lane Community College. From the comparison, the software is able to identify the LCC Business Department courses for which you should receive credit and the course schedule you should follow once you enter LCC.

The 2+2 Transmittal Form and Procedures, provides a process that simplifies the credit granting process.

If you have questions, contact Greg Harpole, Downtown Business Education Center, Lane Community College, 1059 Willamette, Eugene, OR 97401, or call 726-2251.

Submittal of 2+2 Transmittal Form

Before submitting the 2+2 Transmittal Record to Lane Community College, the following steps must be completed:

High School Students

1. Read the Instructions for Receiving Community College Credit.
2. Talk with your high school business instructor or call the Business Department at Lane Community College if you have questions.

High School Teacher

1. Review the Instructions for Receiving Community College Credit.
2. Follow the procedures for granting community college credit to high school students, including:
   a. Complete Course Comparison.
   b. Make copies of 2+2 Credit Transmittal and Course Comparison.
   c. Distribute copies to high school student and LCC. Maintain a file copy.

The Lane Community College Role

To receive community college credit for business courses taken in high school, the procedures listed below will be followed:

1. Evaluation Once your high school teacher has submitted the 2+2 Credit Transmittal Forms to Lane Community College, the Business Department will review your form to verify the community college courses for which you will receive credit.

2. Letter After the Transmittal Forms have been evaluated, a letter will be mailed to you indicating the community college credit to be received and the procedures to follow to receive the credit.

3. Formal Record The letter will serve as the formal record to be used to begin the process of transcripting the community college credit. Keep your copy of the letter.

Transcripting Process

To have your credit transcripted at Lane Community College, the procedures listed below will be followed:

1. Before or after your graduation from high school, apply for admission to Lane Community College. Contact the Admissions Office by mail or phone if you have questions.

   Before registration at Lane Community College, meet with one of the Lane Community College counselors to develop your term schedule at Lane Community College. Make sure you bring the following to the meeting with the counselor:
   a. Letter indicating community college credit to be received.
   b. Your copy of the 2+2 Credit Transmittal Materials.

3. If you register at Lane Community College as a full-time student, there will be no charge for the transcripting of your community college credit. There will be $12.00 transcripting fee for students who enter LCC as part-time students (less than 11 credits).

4. The transcripting process will begin as you complete your first term at Lane Community College.
   a. Bring your copy of the 2+2 Credit Transmittal Record and your letter to either: the Lane Community College Downtown Business Education Center, 1059 Willamette, Eugene, or to the Business Department on the LCC Main Campus.
   b. Ask that the records be prepared to transcript your credit.
   c. The Business Department will prepare the transcript requests, and you will be asked to return to the department in a few days to pick up the transcript request.
   d. Take the transcript request to the Student Records Department on the 2nd Floor of the Center Building on the Main Campus.
   e. Your credit will be entered onto your transcript after your first completed term at Lane Community College.

PURPOSE OF MENTORING PARTNERSHIPS

THE PURPOSE OF MENTORING PARTNERSHIPS IS TO HELP STUDENTS MAKE A SMOOTH TRANSITION FROM THE CLASSROOM TO THE WORKPLACE.

A248

* BUSINESS REPRESENTATIVES WHO SERVE AS MENTORS CAN SEE THE VALUE OF THE VARIOUS PROGRAMS—PARTICULARLY VOCATIONAL PROGRAMS—IN TODAY'S SCHOOLS.

* MENTORING PROVIDES ONE-ON-ONE INSTRUCTION FOR STUDENTS FROM "THE REAL WORLD" OF INDUSTRY AND COMMERCE.

* MENTORS ALSO CAN HELP TEACHERS STAY ABREAST OF CHANGES IN THE WORK WORLD.

* BY CONTRIBUTING MENTORS, BUSINESS CAN MAKE A TANGIBLE CONTRIBUTION OF THEIR HUMAN RESOURCES TO EDUCATION ON A CONTINUING BASIS.

* PARTICIPATING IN MENTORING PROGRAMS INCREASES COMMUNICATION AMONG THE VARIOUS COMPANIES REPRESENTED IN THE GROUP.

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